UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
Environmental Sciences Center
701 Mapes Road
Fort Meade, Maryland 20755-5350

DATE : May 26, 2011

SUBJECT: Region III Data QA Review

FROM: Colleen Walling
Region III ESAT RPO (3EA20)

TO: Michael Towle
Remedial Project Manager (3HS31)

Attached is the organic data validation report for the Metal Bank of America site (Case #: 41168; SDG#: C0AA0) completed by the Region III Environmental Services Assistance Team (ESAT) contractor under the direction of Region III EAID.

If you have any questions regarding this review, please call me at (410) 305-2763.

Attachment

cc: (b) (4) [redacted]

TO: #0037 TDF: #05060

Lockheed Martin IS&GS – Civil
Energy & Environment
ESAT Region 3
US EPA Environmental Science Center
701 Mapes Road Ft. Meade, MD 20755-5350
Telephone 410-305-3037 Facsimile 410-305-3597

LOCKHEED MARTIN
We never forget who we're working for™

Date: May 26, 2011

Subject: Organic Data Validation (M3 Level)
Case: 41168
SDG: C0AA0
Site: Metal Bank of America

From: (b) (4) [redacted]

To: Colleen Walling
ESAT Region 3 Project Officer

OVERVIEW

Case 41168, Sample Delivery Group (SDG) C0AA0, consisted of four (4) sediment samples including one (1) field duplicate pair analyzed for aroclor compounds. Samples were analyzed by Mitkem Laboratories (MITKEM) according to Contract Laboratory Program (CLP) Statement of Work (SOW) SOM01.2 through the Routine Analytical Services (RAS) program.

SUMMARY

Data were validated according to Region 3 Modifications to the National Functional Guidelines for Organic Data Review, Level M3 and is assigned the Superfund Data Validation Label S4VM (Stage_4_Validation_Manual). Areas of concern with respect to data usability are listed below.

MINOR PROBLEM

- Aroclor compounds with percent difference (%D) greater than twenty five percent (>25%) between the two (2) analytical columns were qualified "J" on the Data Summary Form (DSF). The lower of the two (2) column results are reported.

NOTES

- Sample weights other than thirty (30) grams were used in the analyses of the sediment samples associated with this case. The dilution factors reported on the DSF reflect actual sample weights analyzed.

- Reported recoveries and Relative Percent Differences (RPDs) for aroclor compounds in Matrix Spike/Matrix Spike Duplicate (MS/MSD) analyses of sample C0AA0 were not within control limits on both columns with the exception of percent recoveries of aroclors 1016 and 1260 in MS analysis on one (1) column.

- A non spiked compound was detected in the aroclor analyses of sample C0AA0 and the MS/MSD analyses of this sample. Results and precision estimates are as follows:

	Concentration ug/Kg			
Compound	C0AA0	MS	MSD	%RSD
Aroclor 1254	590 J	162 J	461	54

%RSD = Percent relative standard deviation

- Reported recoveries for aroclor compounds in the Laboratory Control Sample (LCS) analysis were within control limits on both columns.

- Results for field duplicate pair C0AA1/C0AA4 were comparable with the exception of aroclor 1254.

ATTACHMENTS

Appendix A – Glossary of Data Qualifier Codes
Appendix B – Data Summary Form(s)
Appendix C – Chain of Custody Records
Appendix D – Laboratory Case Narrative

DCN: 41168_C0AA0

Appendix A
Glossary of Data Qualifier Codes

GLOSSARY OF DATA QUALIFIER CODES (ORGANIC)

CODES RELATED TO IDENTIFICATION

(confidence concerning presence or absence of compounds)

U = Not detected. The associated number indicates approximate sample concentration necessary to be detected.

NO CODE = Confirmed identification.

B = Not detected substantially above the level reported in laboratory or field blanks.

R = Unusable result. Analyte may or may not be present in the sample. Supporting data necessary to confirm result.

N = Tentative identification. Consider present. Special methods may be needed to confirm its presence or absence in future sampling efforts.

CODES RELATED TO QUANTITATION

(can be used for both positive results and sample quantitation limits):

J = Analyte present. Reported value may not be accurate or precise.

K = Analyte present. Reported value may be biased high. Actual value is expected to be lower.

L = Analyte present. Reported value may be biased low. Actual value is expected to be higher.

UJ = Not detected, quantitation limit may be inaccurate or imprecise.

UL = Not detected, quantitation limit is probably higher.

OTHER CODES

NJ = Qualitative identification questionable due to poor resolution. Presumptively present at approximate quantity.

Q = No analytical result.

Appendix B
Data Summary Forms

DATA SUMMARY FORM: Aroclor

Case #: 41168 SDG : C0AA0
Site : METAL BANK OF AMERICA
Lab. : MITKEM

Number of Soil Samples : 0
Number of Water Samples : 0
Number of Sediment Samples : 4

Sample Number :		C0AA0		C0AA1		C0AA2		C0AA4			
Sampling Location :		SD-01		SD-02		SD-03		SD-05			
Field QC :				Dup. of C0AA4				Dup. of C0AA1			
Matrix :		Sediment		Sediment		Sediment		Sediment			
Units :		ug/Kg		ug/Kg		ug/Kg		ug/Kg			
Date Sampled :		04/27/2011		04/27/2011		04/27/2011		04/27/2011			
Time Sampled :		10:28		10:54		11:08		10:56			
%Moisture :		23		27		32		35			
Dilution Factor :		0.99		0.99		0.99		0.99			
Aroclor Compound	CRQL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Aroclor-1016	33										
Aroclor-1221	33										
Aroclor-1232	33										
Aroclor-1242	33										
Aroclor-1248	33										
Aroclor-1254	33	590	J	270							
Aroclor-1260	33										
Aroclor-1262	33										
Aroclor-1268	33										

CRQL = Contract Required Quantitation Limit

SEE NARRATIVE FOR CODE DEFINITIONS

To calculate sample quantitation limits: (CRQL * Dilution Factor) / [(100 - %Moisture) / 100]

Revised 09/99

Appendix C
Chain of Custody Records

USEPA CLP Organics COC (REGION COPY)
DateShipped: 4/28/2011
CarrierName: FedEx
AirbillNo: 7970 4189 4589

CHAIN OF CUSTODY RECORD
Metal Bank of America/WV
Case #: 41168
Cooler #:

No: 3-042011-125328-0001
Lab: Mitkem Corporation - MITKEM
(b) (4)
Lab Phone: 401-732-3400

Organic Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	Inorganic Sample #	Sample Type
C0AA0	Sediment/ Suddha Graves	Grab	CLP ARO(21)	1000 (4 C) (1)	SD-01	04/27/2011 10:28		Field Sample
C0AA1	Sediment/ Suddha Graves	Grab	CLP ARO(21)	1002 (4 C) (1)	SD-02	04/27/2011 10:54		Field Sample
C0AA2	Sediment/ Suddha Graves	Grab	CLP ARO(21)	1004 (4 C) (1)	SD-03	04/27/2011 11:08		Field Sample
C0AA4	Sediment/ Suddha Graves	Grab	CLP ARO(21)	1008 (4 C) (1)	SD-05	04/27/2011 10:56		Field Duplicate

Special Instructions:

Shipment for Case Complete? Y
Samples Transferred From Chain of Custody #

Analysis Key: CLP ARO=CLP TCL Aroclors

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
Shipped to lab	(b) (4)	4/28/11									

U.S EPA Region III Analytical Request Form

Revision 11.09

OASQA USE ONLY			
Control #	CT5417-1	RAS #	41168
DAS#		NSF #	
PES #		Analytical TAT	21

41168

Date: 3/21/11	Site Activity: Removal Site Evaluation		
Site Name: Metal Bank of America – State Road Site		Street Address: 6801 State Road	
City: Philadelphia	State: PA	Latitude:	Longitude:
Program: Superfund	Acct. #: 2011TO3N302DC6CA3DERS00	CERCLIS #: PAD981737166	
Site ID: A3DE	Spill ID:	Operable Unit:	
Site Specific QA Plan Submitted: ☐ No ☒ Yes	Title: Sampling QA/QC Work Plan		Date Approved: 3/18/11
EPA Project Leader: Mike Towle	Phone#: 215-287-2443	Cell Phone #: 215-287-2443	E-mail: towle.michael@epa.gov
(b) (4) [redacted]			
Contractor: TechLaw, Inc.		EPA CO/PO: Jeffrey Fang/ Karen Esposito	
#Samples 6	Matrix: sediment	Parameter: Aroclors Mitkem	Method: CLP SOM01.2
#Samples	Matrix:	Parameter:	Method:
#Samples	Matrix:	Parameter:	Method:
#Samples	Matrix:	Parameter:	Method:
#Samples	Matrix:	Parameter:	Method:
#Samples	Matrix:	Parameter:	Method:
#Samples	Matrix:	Parameter:	Method:
Ship Date From: April 18, 2011	Ship Date To: April 29, 2011	Org. Validation Level M3	Inorg. Validation Level NA

Unvalidated Data Requested: ☐ No ☒ Yes If Yes, TAT Needed: ☒ 14days ☐ 7days ☐ 72hrs ☐ 48hrs ☐ 24hrs ☐ Other (Specify)

Validated Data Package Due: ☐ 42 days ☒ 30 days ☐ 21days ☐ 14 days ☐ Other (Specify) 21/9

Electronic Data Deliverables Required: ☐ No ☒ Yes (EDDs will be provided in Region 3 EDD Format)

Special Instructions: **Extension of TAT for PCB congeners is acceptable to accommodate ASQA Lab schedule, if ASQA can accept the samples. Detection Levels/Target Compound List: PCB Congeners by 1668B - 20 pg/L for water samples, 2 ng/kg for sediment. Target Compound List and CRQLs provided in attached Target Compound list for EPA SOW CBC01.2**

RE: Clarification needed for RAS case 41168 - Metal Bank of America

(b) (4) to: Lisa Penix, Colleen Walling, Jeffrey Fang, Karen Esposito, Michael Towle 05/20/2011 01:24 PM

Cc: Dan Slizys, John Kwedar, Carroll Harris, Victor Yastrop, "(b) (4)" (b) (4)

All,
Sample number C0AA4 is a field duplicate of C0AA1.
Thanks,

Suddha Graves
TechLaw, Inc.

-----Original Message-----
From: Penix.Lisa@epamail.epa.gov [mailto:Penix.Lisa@epamail.epa.gov]
Sent: Thursday, May 19, 2011 2:02 PM
To: Walling.Colleen@epamail.epa.gov; Fang.Jeffrey@epamail.epa.gov; Esposito.Karen@epamail.epa.gov; Towle.Michael@epamail.epa.gov
Cc: Slizys.Dan@epamail.epa.gov; Kwedar.John@epamail.epa.gov; (b) (4) l.epa.gov; Yastrop.Victor@epamail.epa.gov; (b) (4)
Subject: Clarification needed for RAS case 41168 - Metal Bank of America

Disclaimer: Information contained below does not constitute technical direction. The Sampling/Field contractor shall contact their applicable EPA Contracting Officer Representative (COR) for technical direction

Case: 41168
Lab: MITKEM
SDG: C0AA0

Site: Metal Bank of America
EPA Project Leader: Michael Towle
Site Leader: (b) (4)

1. Clarification is needed for this case. Sample number C0AA4 is listed on Chain of Custody Record No. 3-042011-125328-0001 as a "Field Duplicate", but the duplicate pair is not given.

Please feel free to contact me with any questions.

(b) (4)
Lockheed Martin IS & GS - Civil
Energy & Environmental Services
ESAT Region 3
US EPA Environmental Science Center
701 Mapes Road
Fort Meade, MD 20755-5350
(b) (4)
email: Penix.Lisa@epamail.epa.gov

Appendix D
Laboratory Case Narrative

Report Date:
18-May-11 16:38

☑ Final Report
☐ Re-Issued Report
☐ Revised Report

MITKEM LABORATORIES

A DIVISION OF SPECTRUM ANALYTICAL, INC. Featuring HANIBAL TECHNOLOGY

Laboratory Report

Computer Science Corporation
15000 Conference Center Drive
Chantilly, VA 20151-3808

Attn (b) (4)

Work Order: K0731
SDG No: C0AA0
Case No: 41168

Laboratory ID	Client Sample ID	Matrix	Date Sampled	Date Received
K0731-01	C0AA0	Soil	27-Apr-11 10:28	29-Apr-11 08:56
K0731-02	C0AA1	Soil	27-Apr-11 10:54	29-Apr-11 08:56
K0731-03	C0AA2	Soil	27-Apr-11 11:08	29-Apr-11 08:56
K0731-04	C0AA4	Soil	27-Apr-11 10:56	29-Apr-11 08:56

I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. The results relate only to the samples(s) as received. This report may not be reproduced, except in full, without written approval from Mitkem Laboratories.

All applicable NELAC or USEPA CLP requirments have been meet.

Mitkem Laboratories is accredited under the National Environmental Laboratory Approval Program (NELAP) and is certified by several States, as well as USEPA and US Department of Defense. The current list of our laboratory approvals and certifications is available on the Certifications page on our web site at www.mitkem.com.

Please contact the Laboratory or Technical Director at 401-732-3400 with any questions regarding the data contained in the laboratory report.

Department of Defense	N/A
Connecticut	PH-0153
Delaware	N/A
Maine	2007037
Massachusetts	M-RI907
New Hampshire	2631
New Jersey	RI001
New York	11522
North Carolina	581
Pennsylvania	68-00520
Rhode Island	LAI00301
Texas	T104704422-08-TX
USDA	P330-08-00023
USEPA - ISM	EP-W-09-039
USEPA - SOM	EP-W-05-030

Authorized by:
(b) (4)
Laboratory Director

Mitkem Laboratories, a Division of Spectrum Analytical, Inc. submits the enclosed data package in response to USEPA Case # 41168 and SDG# C0AA0. Analyses were performed for four soil samples that were received on April 29, 2011.

The analyses were performed under USEPA Contract # EP-W-05-030.

Please note that the temperature of the sample-shipping cooler received on April 29 was measured at 6.0°C.

The following samples are submitted in this data package:

Client ID	Lab ID	Analysis
C0AA0	K0731-01A	A
C0AA0MS	K0731-01AMS	A
C0AA0MSD	K0731-01AMSD	A
C0AA1	K0731-02A	A
C0AA2	K0731-03A	A
C0AA4	K0731-04A	A

A = Aroclors

The analyses were performed using USEPA CLP Multi-Media, Multi-Concentration (SOM01.2) protocols. The analyses were performed with strict adherence to the SOW with the following exceptions and observations:

SAMPLE RECEIPT:

Scheduling indicates that laboratory QC is required for the Aroclor analysis. A sample was not designated on the TR/COC. The laboratory has sufficient sample volume to perform laboratory QC on sample C0AA0. Per the Region, the laboratory will select a sample for laboratory QC as long as the sample is not a PE, blank or rinsate sample.

Aroclors Analysis:

I. HOLDING TIMES

A. Sample Preparation:

All samples were prepared within the method-specified holding times.

B. Sample Analysis:

All samples were analyzed within the method-specified holding times.

II. METHODS

Samples were analyzed following procedures in laboratory test code: EPA CLP SOM 1.2 ARO

The following equation was used to calculate the concentration of target analytes for soil samples:

$$\text{Concentration (ug/Kg)} = (\text{Amt})(\text{DF})(\text{Uf})\left(\frac{\text{Vt}}{(\text{Vi} * \text{WS} * \left(\frac{100 - \text{m}}{100}\right)}\right)$$

where: Amt = CAL - AMT on raw data
DF = Dilution factor
UF = ng unit correction factor
WS = Weight of sample extracted (g)
Vt = Volume of final extract (uL)
Vi = Volume injected (uL)
M = %moisture (not decanted)

III. PREPARATION

Soil Samples were prepared following procedures in laboratory test code: SW3550B

IV. INSTRUMENTATION

The following instrumentation was used to perform
Instrument Code: E3
Instrument Type: GC-ECD
Description: HP5890 II
Manufacturer: Hewlett-Packard
Model: 5890

GC Columns used:
CLPPest: 30 m X 0.53 mm ID [0.50 um thickness] capillary column and
CLPPestII: 30 m X 0.53 mm ID [0.42 um thickness] capillary column

V. ANALYSIS

A. Calibration:

Calibrations met the method/SOP acceptance criteria.

B. Blanks:

All method blanks were within the acceptance criteria.

C. Surrogates:

Surrogate recoveries were within the QC limits.

D. Spikes:

1. Laboratory Control Spikes (LCS):

Percent recoveries for lab control sample were within the QC limits.

2. Matrix Spike / Matrix Spike Duplicate (MS/MSD):

Duplicate matrix spikes were performed on sample C0AA0.

Percent recoveries were within the advisory QC limits with exception of both Aroclor 1016 and Aroclor 1260 in both the matrix spike and matrix spike duplicate for the front column and both Aroclor 1016 and Arcolor 1260 in the matrix spike duplicate for the rear column.

Replicate RPDs were within the advisory QC limits with the exception of both Aroclor 1016 and Aroclor 1260 for both columns.

Please note that the spike recovery for both Aroclor 1016 and Aroclor 1260 could not be accurately determined due to the high concentration of Arcolor 1254 in the native sample.

E. Dilutions:

No sample in this SDG required analysis at dilution.

F. Samples:

No other unusual observations were made for the analysis.

G. Manual Integration:

No manual integrations were performed on any sample or standard.

All of the submittals to the region are originals other than logbook pages. Photocopies of

logbook pages are included, with the originals maintained on file at the laboratory. Tunes, calibration verifications and initial calibrations that are shared among several cases are photocopies indicating the location of the originals.

I certify that this Sample Data Package is in compliance with the terms and condition of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy Sample Data Package and in the electronic data deliverable has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

(b) (4) [redacted]

CLP Project Manager
05/18/11

SAMPLE LOG-IN SHEET

FORM DC-1

Lab Name Mitkem Laboratories	Page 01 of 01
Received By (Print Name) (b) (4) [redacted]	Log-in Date 04/29/2011
Received By (Signature)	
Case Number 41168	Sample Delivery Group No. C0AA0 / Mod. Ref. No. —

Remarks: (1) Please see associated sample/extract transfer logbook pages submitted with this data package.

1. Custody Seal(s) — Present / Absent*
   Intact / Broken
2. Custody Seal Nos. — N/A
3. Traffic Reports/ Chain of Custody Records (TR/COCs) or Packing Lists — Present / Absent*
4. Airbill — AirBill / Sticker; Present / Absent*
5. Airbill No. — FedEx 7970 4189 4589
6. Sample Tags — Present / Absent*
   Sample Tag Numbers — Listed / Not Listed on Chain-of-Custody
7. Sample Condition — Intact / Broken*/ Leaking
8. Cooler Temperature Indicator Bottle — Present / Absent

9. Cooler Temperature	6.0 °C
10. Does information on TR/COCs and sample tags agree?	Yes / No*
11. Date Received at Laboratory	04/29/2011
12. Time Received	08:56

Sample Transfer

Fraction (1) TVOA/VOA	Fraction (2) SVOA/PEST/ARO
Area #	Area # R1
By	By (b) (4) [redacted]
On	On 4/29/11

EPA Sample #	Corresponding: Sample Tag #	Corresponding: Assigned Lab #	Remarks: Condition of Sample Shipment, etc.
C0AA0	1000	K0731-01	Good
C0AA1	1002	K0731-02	↓
C0AA2	1004	K0731-03	↓
C0AA4	1008	K0731-04	Good

* Contact SMO and attach record of resolution

Reviewed By (b) (4) [redacted]	Logbook No.
Date 4/29/11	Logbook Page No.

(b) (4) [Mitkem]

From: (b) (4)
Sent: Monday, May 02, 2011 12:26 PM
To: (b) (4)
Cc: Carroll Harris; John Kwedar; penix.lisa@epa.gov; Slizys.Dan@epamail.epa.gov; Snyder.Judy@epamail.epa.gov
Subject: Region 03 | Case 41168 | Lab MITKEM | Issue Discrepancies with tags, jars, and/or TR/COC | FINAL

Agnes,

Summary Start
Issue: Scheduling notes that laboratory QC is required for ARO. A sample was not designated on the TR/COC. The laboratory has sufficient sample volume to perform lab QC on sample C0AA0 for SDG C0AA0.
Resolution: In accordance with previous direction from Region 3, the laboratory will select a sample for laboratory QC as long as the sample is not a PE, blank, or rinsate sample. The laboratory will note the issue in the SDG Narrative, notify the SMO coordinator of the sample selected for laboratory QC, and proceed with the analysis of the samples.
Summary End

Please let me know if you have any questions. To waive any defect(s) associated with this issue, please contact your PO.

Thanks,

(b) (4)
Environmental Coordinator - Regions 3 and 10
CSC

15000 Conference Center Drive, Chantilly, VA 20151
Civil Division | ph: (b) (4) | fax: (b) (4) | (b) (4) www.csc.com

From: (b) (4)
Sent: Monday, May 02, 2011 11:51 AM
To: (b) (4)
Subject: RE: Case 41168

Hi (b) (4)

SDG C0AA0

(b) (4)

From: (b) (4)
Sent: Monday, May 02, 2011 11:59 AM
To: (b) (4)
Subject: FW: Case 41168

(b) (4)

Can you please let me know the SDG that sample C0AA0 will be the QC for?

Issue: Scheduling notes that laboratory QC is required for ARO. A sample was not designated on the TR/COC. The laboratory has sufficient sample volume to perform lab QC on sample C0AA0.
Resolution: In accordance with previous direction from Region 3, the laboratory will select a sample for laboratory QC as long as the sample is not a PE, blank, or rinsate sample. The laboratory will note the issue in the SDG Narrative, notify the SMO coordinator of the sample selected for laboratory QC, and proceed with the analysis of the samples.

Thanks,

(b) (4)
Environmental Coordinator - Regions 3 and 10
CSC

15000 Conference Center Drive Chantilly, VA 20151
Civil Division | (b) (4) www.csc.com

From: (b) (4)
Sent: Monday, May 02, 2011 10:37 AM
To: (b) (4)
Subject: Case 41168

Hi (b)

Scheduling notes that laboratory QC is required for ARO. A sample was not designated on the TR/COC. The laboratory has sufficient sample volume to perform lab QC on sample C0AA0. Is this acceptable to the Region?

Thank you

(b) (4)
CLP Project Manager
Mitkem Laboratories
A Division of Spectrum Analytical
Featuring Hanibal Technology
(P) (b) (4)
(F)

Percent Moisture and Percent Solids Report

Mitkem Sample ID	*Client Sample ID*	*Analyzed*	*Percent Moisture*	*Percent Solids*	*Validated*
K0731-01A	*C0AA0*	04/29/2011	23	77	Yes
K0731-02A	*C0AA1*	04/29/2011	27	73	Yes
K0731-03A	*C0AA2*	04/29/2011	32	68	Yes
K0731-04A	*C0AA4*	04/29/2011	35	65	Yes

Mitkem Laboratories % Moisture and % Solids Logbook

Date In:	4/29/2011 13:50		Temperature In (°C):	105	Analyst(s):	(b) (4)		
Date Out:	4/30/2011 11:18		Temperature Out (°C):	105				Reviewer: (b) (4) (b) 5/2/2011
Mitkem Sample ID	Tare Mass (g)	Wet Wt	Wet Wt (g) Tared	Dry Wt (g)	Dry Wt (g) Tared	% Moisture	% Solids	
K0699-21A	0.99	6.23	5.24	5.60	4.61	12.0	88.0	
K0699-22A	1.00	7.18	6.18	5.43	4.43	28.3	71.7	
K0709-01A	1.00	8.83	7.83	8.26	7.26	7.3	92.7	
K0709-02A	0.97	7.42	6.45	6.93	5.96	7.6	92.4	
K0723-01A	0.97	7.88	6.91	6.85	5.88	14.9	85.1	
K0723-02A	0.97	7.01	6.04	5.84	4.87	19.4	80.6	
K0723-03A	1.00	6.15	5.15	5.20	4.20	18.4	81.6	
K0723-04A	0.97	8.52	7.55	7.34	6.37	15.6	84.4	
K0723-04ADUP	0.98	8.92	7.94	7.62	6.64	16.4	83.6	
K0723-05A	0.99	7.85	6.86	5.98	4.99	27.3	72.7	
K0723-06A	1.01	8.70	7.69	7.13	6.12	20.4	79.6	
K0731-01A	0.98	7.38	6.40	5.94	4.96	22.5	77.5	COAAO
K0731-01ADUP	1.00	6.94	5.94	5.56	4.56	23.2	76.8	
K0731-02A	0.99	9.16	8.17	6.96	5.97	26.9	73.1	COAA1
K0731-03A	1.01	9.04	8.03	6.44	5.43	32.4	67.6	COAA2
K0731-04A	0.99	6.70	5.71	4.68	3.69	35.4	64.6	COAA4
K0732-01A	1.01	8.68	7.67	7.77	6.76	11.9	88.1	
K0732-01ADUP	1.00	9.47	8.47	8.44	7.44	12.2	87.8	
K0732-02A	1.01	9.31	8.30	7.96	6.95	16.3	83.7	

(b) (4)
5/24/11

00233

% Solid = 100(Dry Mass Tared/Wet Mass Tared)

% Moisture = 100 - % Solid

Logbook Number: 110.0038
Location: \\Avogadro\public\Lims\PMoist\2011\04\110429A_PMOIST.xls